

## AMENDMENTS TO THE CLAIMS

### **Claims 1-11. (Canceled)**

**Claim 12. (New)** A bioredox waste water treatment by the line atomizing process

wherein, in a waste water treatment process by the bio-solid method:

an aqueous medium consisting of returned biosolid water or clean water is admixed with 50 volume % or less of a reactive gas consisting of oxygen or a mixed gas of oxygen and ozone;

the same is pressure-transferred by pumping to an atomizer (mixer) under about 0.0981 MPa to about 5.394 MPa (1 to 55 kg/cm<sup>2</sup>); and,

as a result of acting of cavitation/ultrasonic waves of 20 to 12000 kHz, an O/OH radical molecules/atoms reaction is caused by way of acting/impacting of a superhigh temperature/high pressure (several thousands degree/several thousand atmospheres) so that the reactive gas is dissolved to the limit and the remainder, if any, of the active gas is dispersed and mixed as bubbles of 1 nm to 30000 nm diameter forming an active gas-dissolved/dispersed liquid and the aforementioned active gas-dissolved/dispersed liquid is introduced into the waste water under treatment.

**Claim 13. (New)** The bioredox waste water treatment by the line atomizing process described in claim 12 in which the BOD loading of the aforementioned waste water under treatment is in the range from 50 to 200000 mg/liter.

**Claim 14. (New)** The bioredox waste water treatment by the line atomizing process described in claim 12 in which the concentration of ozone in the aforementioned active gas is adjusted to 0.01 to 0.04 mg/liter so as to cause self-oxidative annihilation of the biosolid.

**Claim 15. (New)** The bioredox waste water treatment by the line atomizing process described in claim 13 in which the concentration of ozone in the aforementioned active

gas is adjusted to 0.01 to 0.04 mg/liter so as to cause self-oxidative annihilation of the biosolid.

**Claim 16. (New)** The bioredox waste water treatment by the line atomizing process described in claim 12 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**Claim 17. (New)** The bioredox waste water treatment by the line atomizing process described in claim 13 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**Claim 18. (New)** The bioredox waste water treatment by the line atomizing process described in claim 14 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**Claim 19. (New)** The bioredox waste water treatment by the line atomizing process described in claim 15 in which the length of time taken for up-to-limit dissolution of the reactive gas in the atomizer does not exceed 0.5 second.

**Claim 20. (New)** A process for waste water treatment by the line-atomizing bioredox process according to the treatment described in claim 12 in which the kind, concentration and volume of the reactive gas, the vessel or pool for returning and the introducing duration are selected and unitarily managed in accordance with the proceeding condition of waste water treatment.